

# PHYSICAL ACTIVITY & WEIGHT CONTROL

3 1761 11553776 3



## A rolling stone gathers no fat

The emphasis in fat control is the greatest utilization of stored fats as an energy source for the working cells. Simply speaking, to decrease the fat in your body you should increase the amount of activity of the cells of your body and increase the use of fats as the preferred fuel for those cells. A progressive increase in your physical activity will accomplish just that.

### The Fat Connection

Increased physical activity is the missing link in fat control. It is the Fat Connection. If you will stimulate your fat burning system you can achieve your figure control goals. Only you can do it. Take the time and make the effort to move.

### Suggestions for further reading

- Katch, F.I. and W.D. McArdle. *Nutrition, Weight Control, and Exercise*. Houghton Mifflin Co., Boston, Mass. 1977.
- Morella, J.J. and R.J. Turchetti. *Nutrition and the Athlete*. Mason/Charles Publishers. New York, N.Y. 1976.
- Pollock, M., J. Wilmore and S. Fox. *Health and Fitness Through Physical Activity*. J. Wiley and Sons. Toronto. 1978.

Prepared by Dr. Roger Seaman, Physical Education Department York University. Excerpts are taken from Dr. Seaman's book the Fat Connection to be published in the near future.

This publication has been prepared for the Employee Fitness and Lifestyle project at Canada Life Assurance Company 1978. This project is being operated by the Y.M.C.A. of Metropolitan Toronto and sponsored by Fitness and Amateur Sport.



during television commercials you can expend 50 calories per hour, or 150 calories while watching television for three hours. This would be the equivalent of .15 kilograms of fat per week or 6.75 kilograms per year. (Be sure your walking is not to the refrigerator, as that is a self-defeating action.)

## Unbalanced calories -

Research studies have reported that the majority of obese individuals ingest approximately the same amount of calories as normal weight individuals. However, the obese are far less active, and are therefore in a continuous state of positive caloric balance. The excess calories they consume shows up as fat. Calorie restrictive diets attempt to put you in a negative caloric balance state, but fail to get to the primary cause of the overall problem: *inactivity*. In addition to this sedentary dieters lose muscle as well as fat, resulting in a greater tendency to gain weight after the diet than before. Increased physical activity will accelerate the using up of stored calories, hasten fat loss and insure that loss of muscle tissue does not occur. As well, increased physical activity will improve overall health and fitness; it will increase muscle tone, heart and lung capabilities, endurance, and energy efficiency. In theory the ability to control fat by means of achieving a proper calorie balance is quite easy. Unfortunately for some the gap between theory and practice is quite large, and perhaps seemingly insurmountable. It is not! Fat can be lost, and you can do it, if you are willing to work at it.

## The Situation

Here is the situation you are in. Over a period of several years you have added considerable quantities of fat to your body, due primarily to a lack of physical activity, consequently your metabolic systems are programmed to store calories (as fat). Your task is to re-program yourself to use your stored calories as fuel for your working body. It has been well demonstrated that with increased physical activity certain adaptations can occur regarding the capacity to utilize greater amounts of fat as an energy source. A brief synopsis of the benefits of physical training to fat loss follows: a greater mobilization of fats to the working muscles, more working muscle to use the fats, and a greater utilization of fats as an energy source during physical work.

## Beginning to Move

A change in your physical activity pattern should be undertaken with the same cautious, yet enthusiastic, approach you would take for other lifestyle modifications. Remember, you've led a relatively sedentary existence, so don't rush into a massive program of physical activity. Proceed slowly and comfortably. The secret to success is that you enjoy what you are doing, and that you progress gradually.

## No Sweat

Low intensity rhythmical activities such as walking, jogging, swimming or cycling are best for utilizing body fat as fuel. The amount of time spent involved in moving is the critical factor. Exercise and calisthenic programs are fine for the improvement of muscle tone and cardiovascular fitness, but they are of a high intensity nature, and consequently are of limited value in calorie expenditure. You just can not do them for a long enough time. A good guide to the intensity of physical work is to proceed to the level at which sweat appears, then taper down. As your fitness improves the time when sweating appears lengthens; thus you can accomplish your physical task over a longer period, increasing calorie expenditure.

## Walking

This activity is an excellent beginning which you can undertake about your property and inside your house, apartment or place of work. When encountering a flight of stairs walk up or down, then turn right around and repeat the flight of stairs. Start walking to the local milk store rather than driving. If you rely on public or private transportation to get to work, shopping or recreation, get off a block early and walk the last block. Park your car a block away from work and walk to and from it at the beginning and end of the work day. In public places avoid escalators and elevators, use the stairs. When you walk you use approximately five calories per minute. Although this does not seem like a lot, all the minutes of walking will add up. For example, if you get up and walk

## Introduction

Within the past few years some new and significant findings regarding the importance of physical activity in fat control have emerged. Presently dieting is the primary method used to control weight in North America, with physical activity playing a minor, sometimes non-existent, role. The emphasis upon dieting is wrong. The limited success, particularly in effecting permanent changes, should make each of you search for another means to win the battle of the bulge. Physical activity can produce the meaningful bodily changes desired, while at the same time promoting fitness, health and enjoyment for the rest of your life. There is no better means available to permanently resolve your overfat problem, and the overfat problem of such a large proportion of our population.

## Fat Is where it's at

Excess fat is what millions of North Americans have, and the removal of excess fat is what millions of dollars are spent upon annually. We are a fat society. We over-eat and we under-move. Our response to soft living is a soft body. Fat is necessary in the proper amounts and places in your body. You use it to protect your internal organs, to insulate you from the cold, and as a source of energy for work. Fat also shapes your body, rounding off angles and yielding shapely curves. A little bit of fat is good, a lot is bad.

## What your body says

Your body communicates. Your physical appearance tells a lot about how you regard yourself. You express a body imagery which others tune in to and react to. Their reaction may be positive or negative and is based to a large extent upon preconceptions in their own minds, but it is real. It is therefore important for you to realize that body imagery exists, and that it reflects upon you, your sense of self-worth or self-goodness, your self-concept. Each of you should have a positive body image. To have this you must develop a body you can feel good about. If you feel good about yourself, you will exude a sense of goodness to others, and they will react positively to you. Positive feelings reinforce each other. By changing your body your entire outlook, your energy flow and output, and your relationships with others can change. You can create a new you.

Numerous studies have aptly demonstrated that in such diverse environments as children's playgrounds and the world of business, body imagery is very influential. Children will repeatedly choose normal weight peers as playmates over their fat counterparts. In business, individuals who are obese tend not to be promoted. Corporate and corpulence do not mix. The obese are perceived as not having the personal characteristics requisite to a top management position (if you can't control your own body, how are you going to control others?). Coupled with this is the expectation of many years of service to the organization, service which might be interrupted by the unhealthy consequences of being too fat. Strong evidence suggests that as the proportion of body fat increases beyond normal the incidence of certain physical disabilities such as hypertension, cerebro-and cardiovascular disorders, diabetes, cirrhosis, iron deficiency anemia, gall bladder dysfunction, and orthopedic disabilities also increases. Excess fat complicates surgery and shortens life expectancy (this is the reason overweight individuals have rated life insurance policies). Like it or not, your body is going to have a great influence upon where you are and where you can realistically go.

## The Energy Crisis

It is paradoxical that during a time of an acclaimed energy shortage many North Americans possess an overabundance of personal energy reserves, FAT. This overabundance reduces personal efficiency and productivity. It slows you down, makes you feel sluggish, decreases your opportunities for activity, increases your chances for injury, and increases your risk of acquiring certain degenerative diseases and premature death. Why persist in storing something which is

going to have such a negative influence upon you? Rather than conserve your stored energy you should be using it up. Don't hoard it, waste it. Consider yourself an anti-conservationist. Be active every chance you have and burn up those stored fuels. You will find that as your activity increases and you use up more of your fat reserves the easier physical tasks will become. You are achieving a degree of physical fitness and carrying less weight around. It is ironic, but the lower the fuel reserves you carry around, the lower your chance of "running out of gas", fatiguing. The energy crisis world wide results from insufficient fuel reserves to meet the demands for them. In your personal energy crisis you have insufficient demands to meet your fuel reserves; you do not undertake enough physical activity.

## Progress and Technology

We live in an age of advanced technology, increased personal income and increased leisure time. Technology has adapted to meet the demands of a more affluent society, to increase convenience, mobility, communication and general ease of living. We have been provided with better and easier means of saving personal energy. Consider your daily routine and the amount of physical effort you undertake. If you work outside the home, how much of your time is spent sitting in a car, behind a desk, during meals and watching television. If you work at home, how much time is spent sitting or standing; how often do you make one trip, rather

than two, to conserve energy? Think about the conveniences you have which make life easier for you. What recreational activities do you pursue during your leisure time? Do they involve physical activity, or are they quiet, relaxing activities? It is not strange at all that so many have accumulated so much (fat) over the years.

## How to achieve thinness without trying

Fat chance! You can't do it. You can not undo all the damage you've done to your body without effort. You are going to have to work at losing your fat. If you are unwilling to change your lifestyle and dedicate yourself to becoming thin, you will be unsuccessful! You've got to want it, and you have to work for it. There are no magic methods, no simple solutions, no pills, shots, drugs, special clothing, machines or diets which will make fat loss easy. You are fat. You achieved this by eating more than you needed. Overeating is not the cause however, it is the effect of your life style, and overfat is the result. In simple language your physical needs are not sufficient to process all the food you eat. Why do you eat too much? Why are you inactive? These are the questions which must be resolved before any long term changes in body composition will be accomplished.

## Caloric Balance

The theory behind fat control is quite simple: achieve a proper balance between energy intake and energy output. If you take in more calories (food energy) than you burn up in your system (fuel energy) you will be in a state of *positive* calorie balance. The excess calories you ingest will be converted to fat and stored (stored energy). If you burn up, by means of increased activity, more calories (fuel energy) than

you take in, you will be in a state of *negative* calorie balance. In such a condition the energy you require to support your activity which is not supplied in your diet is obtained from your fat stores. Over a period of time your stored energy reserves will be depleted and you will lose your fat.

## Methods and Madness

Tremendous scientific advances have programmed us to believe that almost any obstacle can be overcome with a minimal expenditure of personal effort. Machines and

# Instant Fat Control

Clamp Yourself In Then Sit Back & Relax All Those Extra Pounds Away



techniques have been developed which will do work for us. Our attempts to bring our bodies back under control, shaping up before we are shipped out, reflect this attitude of taking the easy way out. We want good, effortless living, without restrictions on personal life-style and diet, while at the same time we want to be slim and firm. Well we can't have it both ways. Dieting alone is unsuccessful because you are continually being stimulated by the very item you are trying to cut down upon. It is easier to cut out smoking or drinking because you do not require these items. Food however is a necessity; you must eat.

